

insulating film, the first intra-layer insulating film being formed with a recess reaching a bottom of the first intra-layer insulating film, the recess having a pad part and a wiring part continuous with the pad part, the pad part having a width wider than a width of the wiring part, a plurality of insulating regions being protruded from the bottom of the pad part, and the recess being formed so that the insulating regions are disposed in such a manner that a recess area ratio in a near wiring area superposed upon an extended area of the wiring part into the pad part, within a first frame area having as an outer periphery an outer periphery of the pad part and having a first width, becomes larger than a recess area ratio in a second frame area having as an outer periphery an inner periphery of the first frame area and having a second width, wherein the recess area ratio in the near wiring area is a square measurement of the recess in the near wiring area divided by a total square measurement of the near wiring area and the recess area ratio in the second frame area is a square measurement of the recess in the second frame area divided by a total square measurement of the second frame area;

a first pad filled in the pad part of the recess; and

a wiring filled in the wiring part of the recess.

A1
Amend
A2

9. (Amended) A semiconductor device according to claim 7, wherein the insulating regions are not disposed in the near wiring area.

10. (Amended) A semiconductor device according to claim 7, wherein the insulating regions are not disposed in a central area on an inner side of the second frame area.

A²
(cancel)

11. (Amended) A semiconductor device according to claim 8, wherein the via hole are included in the first pad as viewed along a direction parallel to a substrate normal.

12. (Amended) A semiconductor device according to claim 7, wherein the insulating regions are disposed regularly in the second frame area along a first direction at a first pitch, and a width of the first frame area along the first direction is equal to or wider than the first pitch.

13. (Amended) A semiconductor device according to claim 8, further comprising a conductive wire wire-bonded to the second pad, wherein the insulating regions are not disposed in a central area on an inner side of the second frame area, the via hole are disposed in the central area, and a contact area between the conductive wire and the second pad extends to an area on an outer side of the via hole as viewed along a direction parallel to a substrate normal.

Please add new claim 14 as follows:

new 14
A³

14. (New) A semiconductor device comprising:
a semiconductor substrate;
a first interlayer insulating film made of insulating material and formed on the semiconductor substrate;

*A3
cancel*

a first intra-layer insulating film made of insulating material and formed on the first interlayer insulating film, the first intra-layer insulating film being formed with a recess reaching a bottom of the first intra-layer insulating film, the recess having a pad part, a plurality of insulating regions being protruded from the bottom of the pad part, and the recess being formed so that the insulating regions are disposed in such a manner that a recess area ratio in a first frame area having as an outer periphery an outer periphery of the pad part and having a first width, becomes larger than a recess area ratio in a second frame area having as an outer periphery an inner periphery of the first frame area and having a second width, wherein the recess area ratio in the first frame area is a square measurement of the recess in a near wiring area divided by a total square measurement of the near wiring area and the recess area ratio in the second frame area is a square measurement of the recess in the second frame area divided by a total square measurement of the second frame area; and

a first pad filled in the pad part of the recess.